

WHAT IS CLAIMED IS:

1. A method of manufacturing a wire segment from a metallic wire having a substantially rectangular cross-section, the method comprising steps of:

forming a widened end portion at one end of the wire and a swollen portion on a rear surface of the wire at a bending portion, where the widened end portion is to be bent toward a front surface of the wire, by upsetting the wire in its longitudinal direction; and

bending the widened portion toward the front surface of the wire while tightly holding the widened end portion and the swollen portion in a die.

2. The method of manufacturing a wire segment as in claim 1, the method further including a step of heading an end of the widened end portion toward the bending portion.

3. The method of manufacturing a wire segment as in claim 1, wherein:

a thickness T of the swollen end portion is made to satisfy a formula:  $1.3 < T/t < 1.6$ , where t is a thickness of the metallic wire.

4. The method of manufacturing a wire segment as in claim 1, wherein:

the widened end portion is made in an asymmetrical shape with respect to an axis of the metallic wire by performing the upsetting step one or several times.

5. The method of manufacturing a wire segment as in claim 4, wherein:

the asymmetrically widened end portion is formed by performing the upsetting step several times, and then further bent to form a slant angle with respect to the axis of the metallic wire by performing the upsetting process one more time.

6. The method of manufacturing a wire segment as in claim 5, the method further including a step of forming a tapered portion at one end of the metallic wire, the tapered portion having a tapered surface slanted in a direction corresponding to the slant angle, the tapered portion forming step being performed before the upsetting step.

7. The method of manufacturing a wire segment as in claim 2, wherein:

the heading step includes a step of forming a projected end at an end of the widened end portion.

8. The method of manufacturing a wire segment as in claim 5, wherein:

a projected end is formed at an end of the symmetrically widened end portion together with forming the slant angle.

9. A method of combining a plurality of the wire segments manufactured according to claim 1 to form a rotor winding of a rotational electric machine.

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